

The Motor-cab School.

By FREDERIC LEES.

An account of the remarkable school in Paris where the motor-car drivers are taught how to steer with safety through the "dummy"-thronged streets. Illustrated with photographs specially taken by our own artist.



SOME distance to the north of Paris, in that most uninviting part of the suburbs known as Aubervilliers, is a school which has every title to be called peculiar. There is no school in the world so peculiar, in fact, for the simple reason that the *école d'apprentissage* of the great Paris cab company, the Compagnie Générale des Voitures, is the only "academy" of the kind in the world—the only school where the education of drivers of motor-cars receives as much care and attention as is bestowed by, say, a coach on an undergraduate, or a trainer on an athlete about to enter some severe physical contest.

Before describing the essentially peculiar methods used at Aubervilliers to teach the Paris "cabby" how to drive his motor-car in a way which will cause neither loss of life nor injury to limb, let me give some particulars as to how the school came to be started only a few months ago. For some time past—in fact, ever since electric cabs made their appearance in London streets—M. Maurice Bixio, who is the President of the Compagnie Générale des Voitures à Paris, has been working at that problem the satisfactory solution of which will mean almost the total disappearance of horses from the thoroughfares of our great cities. Having recognised that the carriage of the future will be one whose motive-force is not petroleum, but electricity, M. Bixio commenced a profound study of the many questions which must be taken into consideration before a satisfactory solution of the problem of electric motor-cars can be found. A little more than a year ago I remember calling upon M. Bixio, and finding him hard at work on the study of reports drawn up by the company's engineers on the subject of the respective merits

of various motors and accumulators (some hailed from Berlin and London, others from New York), which he had ordered to be put to the most exacting tests. The results of those studies I saw the other day upon calling at one of the company's dépôts, 112, Rue Cardinet, where I was met by M. Ph. Gourdon, the amiable Directeur de la Manutention, under whose guidance my visit was paid to the Aubervilliers school.

There, side by side with apparently innumerable ordinary four-wheelers, could be seen some ten or fifteen handsome-looking, yellow and black electric cabs, which M. Gourdon explained were identical, as far as the accumulators were concerned, with the London motor-car. The London accumulator was so far, notwithstanding

its enormous weight of 1,763lb., the best on the market. As in the case of the ordinary cab, the driver of the new vehicle, which will so soon be in general use in the streets of Paris, is seated in front, the square box which forms his seat inclosing a piece of mechanism which communicates the current of the battery to the motor. This mechanism is most ingenious. It consists of a cylinder composed of raised points of metal, which receive the current from the accumulator, and it terminates outside by a lever, placed to the left of the driver, by means of which he can move or stop his motor-car. For instance, when the lever is vertical the car is motionless.

To put it into motion, the lever is made to describe a forward circular movement. Placed at a certain angle, the motor-car will go slowly; at another angle, the speed will be increased; while at yet another angle its motion will be very rapid. By giving the lever a backward movement, three results can be obtained—namely, moderate use of the brake, full use of the brake, and backward motion of the carriage.

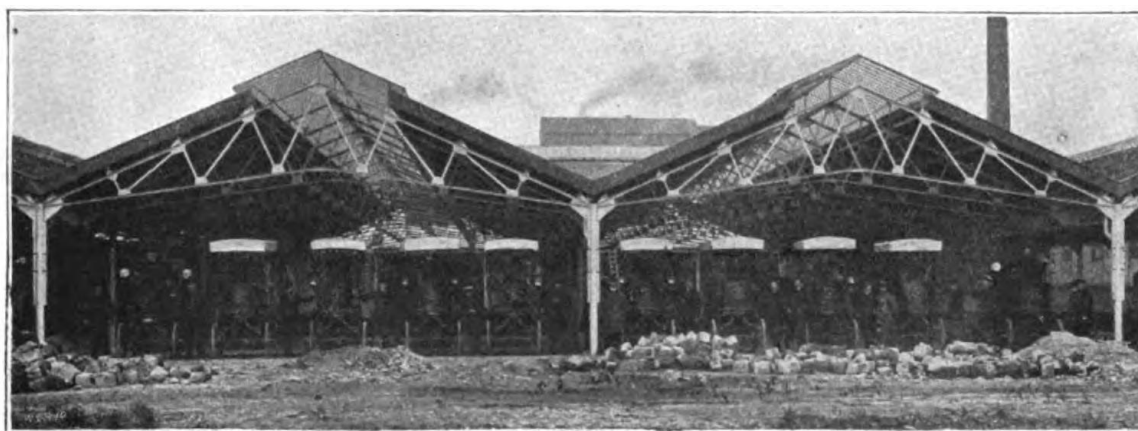


M. PH. GOURDON, DIRECTOR OF
THE "SCHOOL."
From a Photo.

In addition to these powerful brakes, the driver has two others at his disposal which he can work with his feet. He guides his vehicle by means of a small wheel placed at his right-hand side. Finally, to complete a summary description of the French motor-car upon which M. Bixio has been working for so long, the motor is placed under the seats for the passengers.

To the left of the courtyard at 112, Rue Cardinet, and immediately upon entering it, is a shed used as a temporary charging-station for the accumulators, a number of which were being charged at the time of my arrival. After the accumulators had been charged (and the operation takes from six to seven hours for each one) they were wheeled along a pair of rails and raised by hydraulic pressure under the bodies of a number of cabs which were waiting to be given their daily supply of electricity—a supply which,

Aubervilliers school, so that when they came to drive the new motor-cars in Paris the company would be able to form a correct opinion of the chances of success of the new vehicle. For instance, they had purposely chosen men who knew nothing whatever about the application of electricity, so as to be certain that the electric cab could be driven by the least intelligent among a body of men not distinguished at their best for intelligence. And it was also necessary to obtain an idea as to the number of accidents which would happen in a given time with the motor-car, compared with the number which happen with the ordinary vehicle, also the average distance which their hundred electric cabs would run without recharging; as well as the cost of running the cabs, etc. M. Gourdon had just told me that the company paid three-pence per watt for electricity at the present time. but that they intended to manufacture power



From a Photo. by]

THE MOTOR-CABS AND THEIR PUPIL DRIVERS.

[George Newnes, Limited.

by the way, enables them to travel a distance of sixty kilometres on the level.

The trials which M. Bixio has made with these electric motor-cars have been so successful that he has considered himself justified in deciding to put one hundred of them at the disposal of the Parisians. Hence the necessity for the Aubervilliers school for training drivers of the new carriage, in which the people of Paris have already commenced to take a keen interest, judging from the numbers who stop to gaze at them whenever they pass along the streets.

As we glided on our way to Aubervilliers (of course on a motor-car), which is about four and a quarter miles from the Rue Cardinet, M. Gourdon gave me a *résumé* of the aims of his company. They had selected from the thousands of cabmen who hire vehicles from them a fairly representative number of all classes to drive the first hundred electric cabs: old and young men, cabmen of every degree of intelligence had been chosen as pupils for the

themselves at one-third the cost, when we passed under the railway bridge over which the Northern Railway line passes, turned into the Rue du Pilier, and reached the school of which I had heard so much.

Stretching out before us was a piece of ground some 50,000 square yards in area, and inclosed by a high wall. In the distance rose skywards a chimney, which it was easy to see from its cleanliness had not yet poured forth smoke; and in the immediate neighbourhood was a building in course of construction, which M. Gourdon explained was the place where the company were fitting up two engines of 120 horse-power each, and two dynamos for the generation of the electricity for the thousand electric cabs which they expected to have running in Paris at the time of the 1900 Exhibition. The building on the left, he said, was to be used as a hospital for sick and disabled horses, when their existing hospital was removed from Charonne on account of the complaints which had been made by



PART OF THE SCHOOL TRACK WHERE THE STEEP RUE DE MAGDEBOURG IS REPRODUCED. BACK VIEW OF THE DUMMY "PARISIAN TYPES." [George Newnes, Limited.]

inhabitants of that suburban part of Paris, which was quickly becoming a residential quarter. Side by side, therefore, would be seen the horse and the motor-car, the one fast disappearing before the other. "And when the horse has become a thing of the past," said M. Gourdon, "nothing will be simpler than to convert our hospital into shelters for more motor-cars like the one you see to your right. It has been so built that the sides can be taken down in the course of a very few days." In the centre of the desolate landscape before us was waste ground ready for the extension of the works at present in course of construction, whenever that might be necessary. And skirting the

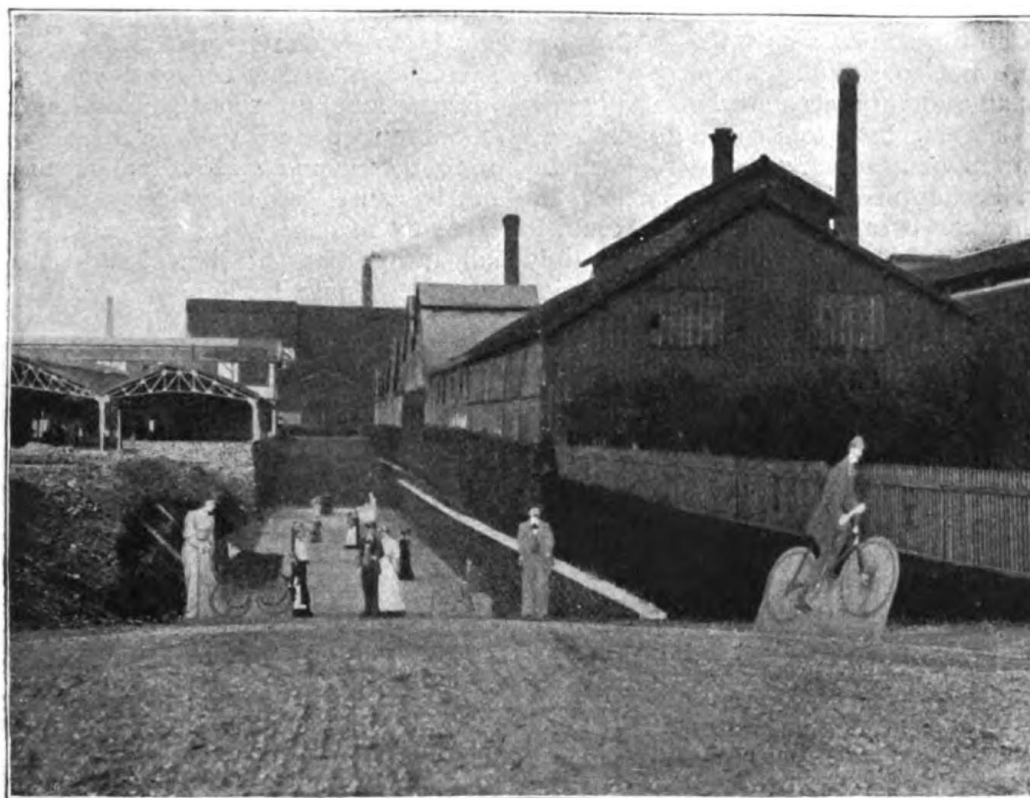
wall to our right for some distance was the famous track, 700 yards in extent, upon which M. Gourdon's pupils are made proficient in the art of driving their motor-cars. Those cars, numbering fifteen, differ from the electric cab in this particular only—that they are merely covered with a slight awning. The advantage of this will be at once apparent; each car can be used by several of the fifty or sixty pupils at once—one of

them being the actual driver, the others in the body of the vehicle learning how to drive by following the instructions given.

Proceeding to our right along the track in question, we come to the top of a steep incline—the "Rue de Magdebourg"—so called



DRIVERS BEING TAUGHT HOW TO AVOID THE DUMMY "TYPES." [George Newnes, Limited.]



From a Photo. by]

FRONT VIEW OF THE SILHOUETTE DUMMIES.

[George Newnes, Limited.

because its gradient is the same as that of the street of that name which leads from the Quai Debilly to the Avenue du Trocadéro, and which is a favourite place for the testing of the powers of motor-cars. The imitation street was peopled by so many Parisian types—or rather, such excellent sheet-iron representations of them—that I might have been inclined to remark upon the number of visitors the company's works had that day, had it not been for their silence and immobility. Here was the figure of a correctly-dressed gentleman wearing a tall hat; there stood an old gentleman in whose buttonhole, if he had had a buttonhole, one might have expected to see the red ribbon of the Legion of Honour; while placed at intervals along the

orders to his men to drive their motor-cars on to the track. When I explain that M. Gourdon's afternoon pupils are almost as skilful as the driver who had brought us with speed and in safety from the heart of Paris, it will be understood that they had not the slightest difficulty in passing in and out among the dummy figures of men, women, and dogs



From a Photo. by]

A CLOSE SHAVE—RUNNING DOWN A CYCLIST.

[George Newnes, Limited.

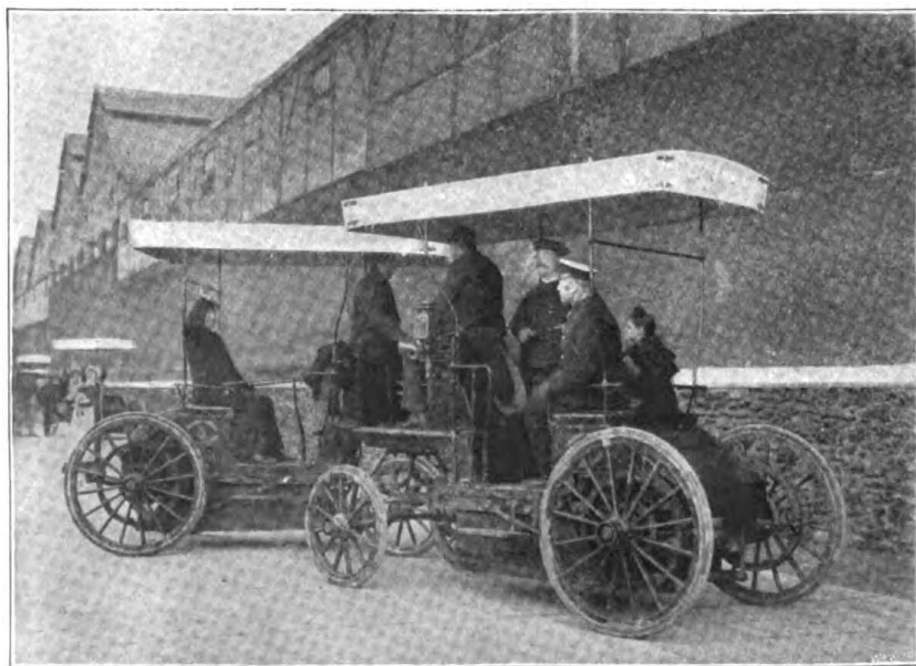
scattered here and there, without even so much as grazing them. But all those in training at the Aubervilliers school are not so skilful. There are morning as well as afternoon pupils, and the *ancien cocher* who is learning how to drive a motor-car would appear to be as much given to his old tricks as when he adorned the box of a "growler." Upon another occasion when I visited the Aubervilliers school I was able to form a good idea of what the motor-car driver is in the early stages of his art. I saw many "people" killed and maimed.

One of the drivers, after coming up the low end of the "Rue de Magdebourg" without causing any damage other than crushing a cardboard brick which happened to be in his way, drove at a fair rate of speed into the

sheet-iron people of all ranks and kinds, a driver is very apt to forget the rules of the road *à la Française*. However, these are things out of which a driver soon grows, and I could quite believe M. Gourdon when he told me that, in a fortnight's time, these same *anciens cochers* who had very nearly caused so many catastrophes would be able to manage their cars as they certainly had never managed horse and cab. That is to say, they would be able to direct the new vehicle with unerring accuracy in and out among the carriages and omnibuses in the most crowded streets of Paris, without danger either to harmless foot-passengers or to themselves. There is no horse to run away just at the wrong moment; they have complete control, by means of powerful brakes and other

easily-worked pieces of mechanism, over their motor-cars, and if anything goes wrong they alone are to blame. Only I could not help wondering whether the familiarity of bowling over dummies did not tend to induce contempt for real human life.

The manœuvres which have been indicated above are not the only ones which M. Gourdon teaches his men to execute with ease and rapidity. Before a driver is judged capable of joining in the little excursions in Paris which he himself takes his pupils several times a week, the pupil must have shown himself able to draw up on the rank, or disengage himself from a long file



"NEW PUPILS"—A COLLISION BETWEEN TWO MOTOR-CARS.
From a Photo. by George Newnes, Limited.

unoffending cyclist, and would have brutally knocked him down had it not been for the powerful brake with which his motor-car was supplied. Guiding a heavy motor-car on so narrow a track and among so many "people" is no easy matter; and if it is so difficult to manipulate going up an incline, what must it be going down hill, when the driver has the whole weight of his motor-car behind him? Another driver, who was going down the "Rue de Magdebourg" at full speed, as nearly as possible killed the wet nurse. Possibly it was only a fear of the consequences of the law which made him pull up in the nick of time. Quite as common an accident as either of these is a collision between two motors, for in the excitement caused by threading the maze of

of motors without so much as touching the wheels of his next-door neighbour's car. Nor does his education end here. So as to make the instruction of their motor-car drivers as complete as possible, the Compagnie Générale have gone to the expense and trouble not only of supplying the Aubervilliers track with well-known gradients such as may be found in Paris streets, but of laying down different kinds of road material, such as is used in the capital. Pupil-drivers may, therefore, become thoroughly familiarized with asphalt, wood, and *bitume* pavements or ordinary macadamized road. Indeed, so anxious has the company been to make the men equal to every emergency that one part of the track has purposely been left in its virgin state of ruts and stones.

Leaving the silent figures to support themselves as best they could on the steep "Rue de Magdebourg," we proceeded to visit the new buildings. Passing into the vast charging-house, where there will be accommodation for many hundreds of accumulators, one could not help being impressed with the magnitude of the preparations which were being made. It was evident that many tens of thousands of pounds sterling were being spent in order to put the first trial batch of one hundred electric motor-cars on the streets of Paris.

Innumerable wires leading from the adjoining dynamo and engine-room passed along the ceiling of the building to the *postes de charges* fixed against the walls, as in the shed in the Rue

which the company is staking so much cannot be better expressed than in the words of M. Gourdon:—

"Five years ago," he said to me, as we walked into the shed, where by this time the motor-cars had collected for a rest, "it would not have been thought possible to use electricity for the traction of carriages. To-day it has been proved that electricity is the only source of energy which can satisfy the exigencies of urban traffic. And before ten years have passed by all public vehicles in large towns and cities will be electric motor-cars."

A few minutes later we inspected the men and their cars drawn up in line under the large shelter, which has sufficient room for a thousand



From a Photo. by]

A "NURSEMAID" IN IMMINENT PERIL.

[George Newnes, Limited.

Cardinet. The rails upon which the accumulators would be brought up to the *postes de charges* on small cars were already laid down; and the same had been done for a similar charging-room overhead. Continuing our inspection we left the building. On all sides was ceaseless activity—workmen adjusting a delicately balanced turn-table, or fitting up a powerful hydraulic lift, man and boy alike working in generating-room and charging-station with a grim earnestness which made it clear to the onlooker that the work had to be done by a fixed time, to be ready for the approaching great experiment. That so much was being done showed that the company expected the experiment would be a success. And the belief upon

motors. (See illustration on page 691.) Some of the men were wearing their new uniform, consisting of Russian cap with peak of white waterproof cloth, small black stuff-jacket upon the collar of which is embroidered the company's shield, black trousers, and small leggings. Few would have recognised them as men who, only a few weeks before, had belonged to the great band of slovenly-dressed Paris *cochers*, famous for their bad language, the slow pace at which they drive, and their not too great commiseration for their horses. Still fewer would have thought these men had been the careless drivers of a few months ago, as one by one they deftly manœuvred their cars from under the shed on to the track, and swept away in the direction of Paris.